

# Volume XVIII, THE SCIENCE TEACHER

## Index—February through December, 1951

### Authors' Index

- Abrahams, Harold J. *A Mural for the Chemical Laboratory*. November: 257.
- Bates, Conrad W. *Building A Wind Tunnel*. October: 207.
- Blanc, Sam S. *Instructional Material for Astronomy and Geology*. December: 296.
- Bleifeld, Maurice. *From Hollywood to Science Classroom*. April: 157.
- Bobbitt, Blanche G. *The Basic Program of Unesco*. February: 49.
- Bowen, Harold G. *Foundations, Industry, and Education*. April: 136.
- Brasfield, S. A. *Physical Science Today—A Symposium*. February: 15.
- Brown, George F. *Reclaimed  $KClO_3$ ,  $KCl$ , and  $MnO_2$* . April: 151.
- Buell, Mahlon H. *Getting Started in the Teaching of Photography*. April: 144.
- Buell, Mahlon H. *Physical Science Today—A Symposium*. February: 18.
- Carleton, Robert H. *Report of an Inquiry Concerning NSTA Membership*. April: 156.
- Carleton, Robert H. *Using Principles of Electrolysis in Teaching and Testing*. February: 45.
- Collette, Alfred T. *The Screw and the Inclined Plane*. April: 150.
- Davis, Hazel. *Elementary Science Possibilities for You*. December: 299.
- Davis, Hubert J. *Teaching Kits for Science*. October: 194.
- Davis, James B. *For the Ladies—Kitchen Physics*. October: 193.
- Dinker, Milford H., Jr. *Atomic and Molecular Models*. October: 199.
- Doepp, George C. *Atomic and Molecular Models*. October: 199.
- Dunning, Gordon M. *Using the Laboratory to Develop Critical Thinking*. March: 85.
- Fox, James Harold. *Some Observations on Books and the Teaching and Learning of Science*. March: 76.
- Freeman, Kenneth H. *Evaluating Elementary Science Instruction*. March: 78.
- Freund, Annis Leeds. *Audio-Visual Aids Extend Learning From Science Trips*. December: 305.
- Gilman, Albert F., Jr. *An Automatic Sprinkler System Head*. November: 259.
- Goff, Aaron. *Let the Teacher Beware*. April: 154.
- Guffin, Frank C. *Physical Science Today—A Symposium*. February: 19.
- Habat, John E. *The Health Science Club*. October: 192.
- Hale, Helen. *Physical Science Today—A Symposium*. February: 17.
- Haupt, George W. *A Regional Science Fair: Organization and Values*. February: 35.
- Headlee, Elmer. *Study Science Where It Is Found*. February: 23.
- Hellmann, Walter H. *Two Demonstrations in Sound*. March: 102.
- Herbst, Lyle C. *Keeping a Reptile Terrarium*. December: 309.
- Hogg, John. *Physical Science Today—A Symposium*. February: 19.
- Holcombe, Waldo H. *Two Experiments With Earth Science Education—At the Tenth-Grade Level*. November: 233.
- Hubbard, Frank W. *The Key to Constructive Industry and Education Relationships*. December: 280.
- Hudspeth, Jack. *Workbooks?—Yes*. March: 74.
- Ingersol, Robert H. *Exotic Fish Embryos for Classroom Demonstrations and Laboratory Experiments*. December: 301.
- Irving, James R. *Still Busy With Research at 92!* February: 26.
- Jeffs, Frederick W. *Demonstrations of Mist, Fog, Cloud, and Rain*. February: 44.
- Jones, Norman R. D. *Study Science Where It Is Found*. February: 23.
- Jones, Roy W. *Exotic Fish Embryos for Classroom Demonstrations and Laboratory Experiments*. December: 301.
- Keirstead, R. E. *Physical Science Today—A Symposium*. February: 16.
- Kimmelman, Harold S. *A Mural for the Chemical Laboratory*. November: 257.
- Kohn, Arnold A. *Five Years of Jet Racing*. October: 205.
- Krasnican, Milan J. *Stimulating Thinking Through Photography in General Science*. December: 282.
- Kruglak, Haym. *A Natural Science Class Accepts the Challenge of Philip Morris!* October: 206.
- Kulicke, Melvin. *Physical Science Today—A Symposium*. February: 14.
- Lacroix, Donald Sewall. *To Show Mineral Matter and Cartilage in Bone*. October: 206.
- Lapp, Walter S. *pH Preferences of Common Plants*. April: 121.
- Lartz, Walter P. *Introducing Photosynthesis*. November: 257.
- Lartz, Walter P. *Semi-Permanent Blackboard Diagrams*. April: 155.
- Long, Albert L. *He Reduces To Live*. April: 150.
- Lowry, Nelson. *Physical Science Today—A Symposium*. February: 14.
- Lumpkin, Irving W. *Short Objective Tests in Physics*. February: 45.
- MacLean, Archie J. *Physical Science Today—A Symposium*. February: 20.

- McMasters, D. R. *Understanding Methods of Measuring Humidity*. December: 308.
- Mallinson, George Greisen. *The Readability of High School Science Texts*. November: 253.
- Morrison, Robert H. *New Jersey Emphasizes Conservation for Teachers*. April: 140.
- Nelson, O. A. *Physical Science Today—A Symposium*. February: 13.
- Newman, Morton L. *Radio-Tube Demonstration Stands*. December: 309.
- Norton, John K. *The Common Interests of Business and Education*. December: 277.
- Olson, Sigurd F. *The Quetico-Superior Wilderness Laboratory*. November: 229.
- Otto, Cliff R. *Training Needed for Chemistry Teachers*. December: 287.
- Owens, Howard B. *Atomic and Molecular Models*. October: 199.
- Palmer, E. Laurence. *A Ditch, Some Water, A Few Kids—Much Opportunity*. November: 232.
- Palmer, E. Laurence. *Implementing the Conservation Yearbook*. April: 133.
- Panush, Louis. *Term Reports in Earth Science*. February: 25.
- Patterson, Margaret E. *How Effective Are You as a Teacher of Scientists?* April: 142.
- Piltz, Albert. *A Science Laboratory for the Elementary School*. October: 190.
- Raskin, Abraham. *An Automatic Sprinkler System Head*. November: 259.
- Raskin, Abraham. *Toys Useful in Teaching Science*. April: 1951.
- Richardson, Evan C. *A Simple Stove or Hot Plate*. March: 102.
- Ross, Helen B. *Conservation Education in Elementary Schools*. February: 31.
- Rumbough, William H. *Use the Illustrations!* March: 69.
- St. Laurence, Francis. *Are Heavy Textbooks Necessary?* March: 72.
- Schaff, John. *Physical Science Today—A Symposium*. February: 14.
- Stanhope, Roy W. *Applied Science in the Community*. April: 147.
- Starkey, James A. *What—Collect in Winter Too?* February: 22.
- Stone, Charles H. *Observations of an Old Timer*. March: 103.
- Subarsky, Zachariah. *Atomic Energy for Good*. October: 185.
- Tannenbaum, Harold E. *A New Approach to the Physical Sciences*. November: 249.
- Taylor, Wayne. *Industrial and Technological Resources Aid Science Teaching*. March: 92.
- Thomson, Betty F. *Controlling Plant Growth With Chemicals*. April: 127.
- Thwaites, William M. *Our Experience With a Boa Constrictor*. December: 308.
- Tyson, Robert. *Science Challenges Disaster*. November: 247.
- Van Waynen, Martinus. *Mock-ups in Teaching Science*. November: 244.
- Vogel, Louis F. *A Spot-Check Evaluation Scale for High School Science Textbooks*. March: 70.
- Weaver, Elbert C. *What the Ideal Chemistry Course Should Be*. November: 240.
- Webb, Hanor A. *Chats With Science Teachers, X: Boiled-Down Books*. February: 37.
- Webb, Hanor A. *Chats With Science Teachers, XI: How Do You Pronounce Laboratory?* December: 1951.
- Webb, Hanor A. *The High School Science Library*. March: 66.
- Wherry, Edgar T. *pH Preferences of Common Plants*. April: 121.
- White, Frances. *Paper Chromatography*. October: 196.
- Wolfe, C. Wroe. *Two Experiments With Earth Science Education—At the Elementary School Level*. November: 235.
- Young, Paul R. *Growing Early Plants for the Home Garden*. March: 88.
- Zim, Herbert S. *Workbooks?—No, at Least not for Beginners*. March: 75.

## Topical Index

### History, Philosophy, Goals, and Objectives

- Science Challenges Disaster*. Robert Tyson. November: 247.
- The Common Interests of Business and Education*. John K. Norton. December: 277.
- The Key to Constructive Industry and Education Relationships*. Frank W. Hubbard. December: 280.

### Multisensory Methods and Materials

- Audio-Visual Aids Extend Learning From Science Trips*. Annis Leeds Freund. December: 305.
- Instructional Material for Astronomy and Geology*. Sam S. Blanc. December: 296.
- Mock-Ups in Teaching Science*. Martinus Van Waynen. November: 244.

### Instructional Suggestions and Methods

- A Ditch, Some Water, A Few Kids—Much Opportunity*. E. Laurence Palmer. November: 232.
- A Natural Science Class Accepts the Challenge of Philip Morris!* Haym Kruglak. October: 206.
- A Spot-Check Evaluation Scale for High School Science Textbooks*. Louis F. Vogel. March: 70.
- Applied Science in the Community*. Roy W. Stanhope. April: 147.
- "Boiled Down Books"; *Chats With Science Teachers—X*. Hanor A. Webb. February: 37.
- Exotic Fish Embryos for Classroom Demonstrations and Laboratory Experiments*. Robert H. Ingersol and Roy W. Jones. December: 301.
- For the Ladies—Kitchen Physics*. James B. Davis. October: 193.

*Getting Started in the Teaching of Photography.* Mahlon H. Buell. April: 144.

"How Do You Pronounce 'Laboratory'?" *Chats With Science Teachers—XI.* Hanor A. Webb. December: 285.

*Industrial and Technological Resources Aid Science Teaching.* Wayne Taylor. March: 92.

*Instructional Material for Astronomy and Geology.* Sam S. Blanc. December: 296.

*Let the Teacher Beware.* Aaron Goff. April: 154.

*Millersville Elementary Science Workshop.* February: 28.

*Observations of an Old Timer.* Charles H. Stone. March: 103.

*Some Observations on Books and the Teaching and Learning of Science.* James Harold Fox. March: 76.

*Stimulating Thinking Through Photography in General Science.* Milan J. Krasnican. December: 282.

*Study Science Where It Is Found.* Elmer Headlee and Norman R. D. Jones. February: 23.

*Teaching Kits for Science.* Hubert J. Davis. October: 194.

*Term Reports in Earth Science.* Louis Panush. February: 25.

*The High School Science Library.* Hanor A. Webb. March: 66.

*Two Experiments With Earth Science Education—At the Elementary School Level.* C. Wroe Wolfe. —*At the Tenth-Grade Level.* Waldo H. Holcombe. November: 233.

*Use the Illustrations!* William H. Rumbough. March: 69.

*Using the Laboratory To Develop Critical Thinking.* Gordon M. Dunning. March: 85.

*Workbooks? Yes.* Jack Hudspeth. March: 74.

*What—Collect in Winter Too?* James A. Starkey. February: 22.

*What the Ideal Chemistry Course Should Be.* Elbert C. Weaver. November: 240.

*Workbooks? No, at Least Not for Beginners.* Herbert S. Zim. March: 75.

**Science Information for Teachers**

*Atomic Energy for Good.* Zachariah Subarsky. October: 185.

*Exotic Fish Embryos for Classroom Demonstrations and Laboratory Experiments.* Robert H. Ingersol and Roy W. Jones. December: 301.

*Foundations, Industry, and Education.* Harold C. Bowen. April: 136.

*Jefferson's Views on Science and Mathematics.* April: 168.

*Leads on Atomic Energy Source Materials for Teachers.* October: 188.

*Leads on Earth Science Source Materials for Teachers.* November: 236.

*pH Preferences of Common Plants.* Walter S. Lapp and Edgar T. Wherry. April: 121.

*Still Busy With Research at 92!* James R. Irving. February: 26.

*The Basic Program of Unesco.* Blanche G. Bobbitt. February: 49.

*The Quetico-Superior Wilderness Laboratory.* Sigurd F. Olson. November: 229.

**Science Clubs, Fairs, Exhibits; Science Talent Searches**

*A Regional Science Fair: Organization and Values.* George W. Haupt. February: 35.

*The Health Science Club.* John E. Habat. October: 192.

**Investigations, Research, and Fact-Finding Studies**

*Are Heavy Textbooks Necessary?* Francis St. Laurence. March: 72.

*The Readability of High School Science Texts.* George Greisen Mallinson. November: 253.

**Experiments, Demonstrations, and Pupil Projects and Activities**

*A Continuously Sensitive Diffusion Cloud Chamber.* October: 204.

*A Mural for the Chemical Laboratory.* Harold J. Abrahams and Harold S. Kimmelman. November: 257.

*A Simple Stove or Hot Plate.* Evan C. Richardson. March: 102.

*An Automatic Sprinkler System Head.* Albert F. Gilman, Jr. and Abraham Raskin. November: 259.

*Atomic and Molecular Models.* George C. Doepp, Milford H. Dinker, Jr., and Howard B. Owens. October: 199.

*Building a Wind Tunnel.* Conrad W. Bates. October: 207.

*Controlling Plant Growth With Chemicals.* Betty F. Thomson. April: 127.

*Demonstrations of Mist, Fog, Cloud, and Rain.* Frederick W. Jeffs. February: 44.

*Five Years of Jet Racing.* Arnold A. Kohn. October: 205.

*He Reduces To Live.* Albert L. Long. April: 150.

*Introducing Photosynthesis.* Walter P. Lartz. November: 257.

*Keeping a Reptile Terrarium.* Lyle C. Herbst. December: 309.

*Mock-Ups in Teaching Science.* Martinus Van Waynen. November: 244.

*Our Experience With a Boa Constrictor.* William W. Thwaites. December: 308.

*Paper Chromatography.* Frances White. October: 196.

*Radio-Tube Demonstration Stands.* Morton L. Newman. December: 309.

*Reclaimed  $KClO_3$ ,  $KCl$ , and  $MnO_2$ .* George F. Brown. April: 151.

*Semi-Permanent Blackboard Diagrams.* Walter P. Lartz. April: 155.

*The Screw and the Inclined Plane.* Alfred T. Collette. April: 150.

*To Show Mineral Matter and Cartilage in Bone.* Donald Sewall Lacroix. October: 206.

*Toys Useful in Teaching Science.* Abraham Raskin. April: 151.

*Two Demonstrations in Sound.* Walter H. Hellmann. March: 102.

*Understanding Methods of Measuring Humidity.* D. R. McMasters. December: 308.

*Using Principles of Electrolysis in Teaching and Testing.* Robert H. Carleton. February: 45.



## Our Advertisers

	Page
American Optical Company .....	274
Bausch & Lomb Optical Company .....	272
Bell Telephone Laboratories .....	269
Central Scientific Company .....	outside back cover
Denoyer-Geppert Company .....	304
Fisher Scientific Company .....	inside front cover
Graf-Apsco Company .....	316
Harcourt, Brace and Company .....	304
D. C. Heath and Company .....	inside back cover
Keystone View Company .....	271
Modern Science Labs .....	294
Scott, Foresman and Company .....	310
Testa Manufacturing Company .....	270
Ultra Violet Products, Inc. ....	298
Welch Scientific Company .....	276

## Education of Science Teachers

- How Effective Are You as a Teacher of Scientists?* Margaret E. Patterson. April: 142.  
*Training Needed For Chemistry Teachers.* Cliff R. Otto. December: 287.

## Conservation and Gardening

- Conservation Education in Elementary Schools.* Helen B. Ross. February: 31.  
*Controlling Plant Growth With Chemicals.* Betty F. Thomson. April: 127.  
*Growing Early Plants for the Home Garden.* Paul R. Young. March: 88.  
*Implementing the Conservation Yearbook.* E. Laurence Palmer. April: 133.  
*New Jersey Emphasizes Conservation for Teachers.* Robert H. Morrison. April: 140.  
*pH Preferences of Common Plants.* Walter S. Lapp and Edgar T. Wherry. April: 121.

## Elementary School Science

- A Ditch, Some Water, A Few Kids—Much Opportunity.* E. Laurence Palmer. November: 232.  
*A Science Laboratory for the Elementary School.* Albert Piltz. October: 190.  
*A Simple Stove or Hot Plate.* Evan C. Richardson. March: 102.  
*Audio-Visual Aids Extend Learning From Science Trips.* Annis Leeds Freund. December: 305.  
*Conservation Education in Elementary Schools.* Helen B. Ross. February: 31.  
*Elementary Science Possibilities for You.* Hazel Davis. December: 299.  
*Evaluating Elementary Science Instruction.* Kenneth H. Freeman. March: 78.  
*Implementing the Conservation Yearbook.* E. Laurence Palmer. April: 133.  
*Millersville Elementary Science Workshop.* February: 28.  
*Toys Useful in Teaching Science.* Abraham Raskin. April: 151.  
*Two Experiments With Earth Science Education—At the Elementary School Level.* C. Wroe Wolfe. November: 235.

## Selection and Organization of Course Content

- A New Approach to the Physical Sciences.* Harold E. Tannenbaum. November: 249.  
*Physical Science Today—A Symposium.* S. A. Brasfield, Mahlon H. Buell, Frank C. Guffin, Helen Hale, John Hogg, R. E. Keirstead, Melvin Kulicke, Nelson Lowry, Archie J. MacLean, O. A. Nelson, and John Schaff. February: 13.

## Tests and the Evaluation of Outcomes

- Evaluating Elementary Science Instruction.* Kenneth H. Freeman. March: 78.  
*Short Objective Tests in Physics.* Irving W. Lumpkin. February: 45.

## NSTA Activities

- Board of Directors Meeting.* Hanor A. Webb. October: 214.  
*Committee on Apparatus and Equipment.* April: 139.  
*Editorial Consultants, The Science Teacher.* February: 6.  
*Election of Officers for 1951-52.* S. Ralph Powers. October: 211.  
*Evaluators of Business-Sponsored Teaching Aids.* November: 263.  
*First National Thomas Alva Edison Institute for Science Teachers.* Ralph W. Lefler. October: 211.  
*From Hollywood to Science Classroom.* Maurice Bleifeld. April: 157.  
*Greetings to ACS from NSTA.* Walter S. Lapp. October: 215.  
*Leading Science Educators To Be On Hand for NSTA Summer Meeting.* April: 149.  
*Lefler Names New Magazine Board.* April: 169.  
*Midwinter Meeting of NSTA and AAAS Science Teaching Societies.* November: 262.  
*Mills College Summer Meeting.* Harold E. Wise. October: 214.  
*Nominating Committee at Work.* February: 50.  
*NSTA Salutes American Chemical Society.* Robert H. Carleton. October: 214.  
*NSTA State and Area Directors.* March: 105.  
*NSTA To Study Facilities for Science Instruction.* February: 27.  
*Officers and Executive Committee, 1950-51.* February: 6.  
*Open Up That Golden Gate.* February: 30.  
*Program—the Philadelphia Meeting.* December: 290.  
*Report of an Inquiry Concerning NSTA Membership.* Robert H. Carleton. April: 156.  
*School Facilities for Science Instruction.* John S. Richardson. October: 213.  
*Spotlight on Manpower for Science and Engineering.* November: 262.  
*Summer Meeting Program.* March: 104.  
*Survey of Membership of Business-Industry Section.* December: 279.  
*Thomas Alva Edison Foundation Institutes for Science Teachers.* April: 169.  
*Workshop for Science Teachers.* April: 149.

